

Appl. No. 10/770,258
Examiner: CHEN, WEN YING PATTY, Art Unit 2871
In response to the Office Action dated April 11, 2005

Date: July 11, 2005
Attorney Docket No. 10113711

REMARKS

Applicant thanks the Examiner for acknowledging Applicant's claim to foreign priority and receipt of the certified copy of the priority document. Responsive to the Office Action mailed on April 11, 2005 in the above-referenced application, Applicant respectfully requests amendment of the above-identified application in the manner identified above and that the patent be granted in view of the arguments presented. No new matter has been added by this amendment.

Present Status of Application

Claims 1-3, 7-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Weindorf et al (US 2002/0130985). Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weindorf et al in view of Mizuno (US 6,398,560). Claims 5-6 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weindorf et al in view of Kakuguchi et al (US 2004/0254001).

In this paper, new claims 14-17 are added. The specification is amended to correct informalities. Support for the amendments and new claims can be found in the original claims, pages 4-6 of the specification, and Figs. 4-9 of the application. Thus, on entry of this amendment, claims 1-17 are pending.

Reconsideration of this application is respectfully requested in light of the amendments and the remarks contained below.

Rejections Under 35 U.S.C. 102(b)

Claims 1-3, 7-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Weindorf et al. The rejections are traversed for the reasons as follow.

Weindorf et al teach a flexible LED backlighting circuit. Paragraph 0025 of Weindorf et al reads:

[0025] FIG. 1 represents a flexible circuit board-based device 100 according to an embodiment. The flexible circuit board-based device 100 includes a flexible circuit board 102 and various devices mounted on the flexible circuit board 102 ... The LEDs 104 may

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be on the top side of the flexible circuit board 102 and the LED control circuits may be on the opposite side, for example, directly beneath the LEDs 104. Stiffeners may be added to the flexible circuit board 102 in areas without circuits or signal lines. The top and bottom side of the flexible circuit board 102 may be an exposed ground plane interconnected by thermal vias with some signal lines connecting the devices.

Weindorf et al do not teach or suggest a liquid crystal module comprising a circuit board disposed on the body, having a plurality of lead wires, a plurality of openings exposing the lead wires, an LED coupled to the lead wires, and a Zener diode coupled to the lead wires through the openings, wherein the LED and the Zener diode are juxtaposed on the lead wires, as recited in claim 1.

To anticipate a claim, a reference must teach every element of the claim. In this regard, the Federal Circuit has held:

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

"The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

In Weindorf et al, the top and bottom sides of the flexible circuit board 102 may be an exposed ground plane interconnected by *thermal vias* with some *signal lines* connecting the devices. See paragraph 0025 of Weindorf et al. However, Weindorf et al do not teach that an LED is coupled to the lead wires, and a Zener diode coupled to the lead wires *through the openings*, as recited in claim 1.

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Furthermore, Weindorf et al do not teach or suggest the juxtaposition of the LED and Zener diode by way of the openings. The thermal vias with signal lines described by Weindorf et al are not suitable for the juxtaposed LED and Zener diode recited in claim 1.

For at least the reasons described above, it is Applicant's belief that Weindorf et al fail to teach or suggest all the limitations of claim 1. Applicant therefore respectfully requests that the rejection of claim 1 be withdrawn and the claim passed to issue. Insofar as claims 2-6 depend from claim 1, and therefore incorporate all of the limitations of claim 1, it is Applicant's belief that these claims are also in condition for allowance.

Weindorf et al fail to teach or suggest a liquid crystal module comprising a circuit board disposed on the body, having a first side and a second side, a plurality of lead wires located between the first side and the second side, a plurality of openings formed on the first side and the second side to expose the lead wires, an LED coupled to the lead wires through the openings on the first side, and a Zener diode coupled to the lead wires through the openings on the second side, wherein the LED and the Zener diode are disposed on the lead wires on the first side and the second side respectively, as recited in claim 7.

As described in connection with claim 1, Weindorf et al teach the top and bottom sides of the flexible circuit board 102 may be an exposed ground plane interconnected by *thermal vias* with some *signal lines* connecting the devices. See paragraph 0025 of Weindorf et al. However, Weindorf et al do not teach a plurality of openings formed on the first side and the second side of a circuit board to expose lead wires, an LED coupled to the lead wires *through the openings on the first side*, and a Zener diode coupled to the lead wires *through the openings on the second side*, as recited in claim 7.

For at least the reasons described above, it is Applicant's belief that Weindorf et al fail to teach or suggest all the limitations of claim 7. Applicant therefore respectfully requests that the rejection of claim 7 be withdrawn and the claim passed to issue. Insofar as claims 8-13 depend from claim 7, and therefore incorporate all of the limitations of claim 7, it is Applicant's belief that these claims are also in condition for allowance.

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Rejections Under 35 U.S.C. 103(a)

Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Weindorf et al in view of Mizuno. Claims 5-6 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Weindorf et al in view of Kakuguchi et al.

As noted above, it is Applicant's belief that that claims 4-6 and 11-13 are allowable by virtue of their dependency from claims 1 and 7, respectively. For this reason, the Examiner's arguments in connection with these claims are considered moot and will not be addressed here.

New Claims

New claim 14 recites a liquid crystal module, comprising a body and a circuit board disposed on the body, having a plurality of lead wires, an insulating substrate formed with a plurality of openings, and an LED and a Zener diode coupled to the lead wires through the openings.

For at least the reasons described in connection with claims 1 and 7, it is Applicant's belief that claim 14 is allowable over the cited references. Furthermore, insofar as claims 15-17 depend from claim 14, and therefore incorporate all of the limitations of claim 14, it is Applicant's belief that these claims are also in condition for allowance.

Conclusion

The Applicant believes that the application is now in condition for allowance and respectfully requests so.

Respectfully submitted,

Nelson A. Quintero
Reg. No. 52,143
Customer No. 34,283
Telephone: (310) 401-6180

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